

Oncology Clinical Pathways Bladder Cancer (Urothelial Carcinoma Only)

January 2024 – V1.2024



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U.S. Department
of Veterans Affairs

Table of Contents

Presumptive Conditions	3
Clinical Presentation and Evaluation	4
Non-Muscle Invasive Surgical Evaluation	5
Non-Muscle Invasive Low Risk	6
Non-Muscle Invasive Intermediate Risk	7
Non-Muscle Invasive High Risk	8
Non-Muscle Invasive Positive Urine Cytology	9
Urothelial Carcinoma of Prostatic Urethra	10
Upper GU Tract Carcinoma	11
Stage II, IIIA, IIIB Muscle Invasive	12
Stage IVA Muscle Invasive	13
Stage IVB Metastatic	14
Post Cystectomy Follow Up	15
Muscle Invasive Post Bladder Preservation Follow Up	16
Molecular Testing Table	17

Bladder Cancer – Presumptive Conditions

VA automatically presumes that certain disabilities were caused by military service. This is because of the unique circumstances of a specific Veteran's military service. If a presumed condition is diagnosed in a Veteran within a certain group, they can be awarded disability compensation.

Vietnam Veterans – Agent Orange Exposure or Specified Locations

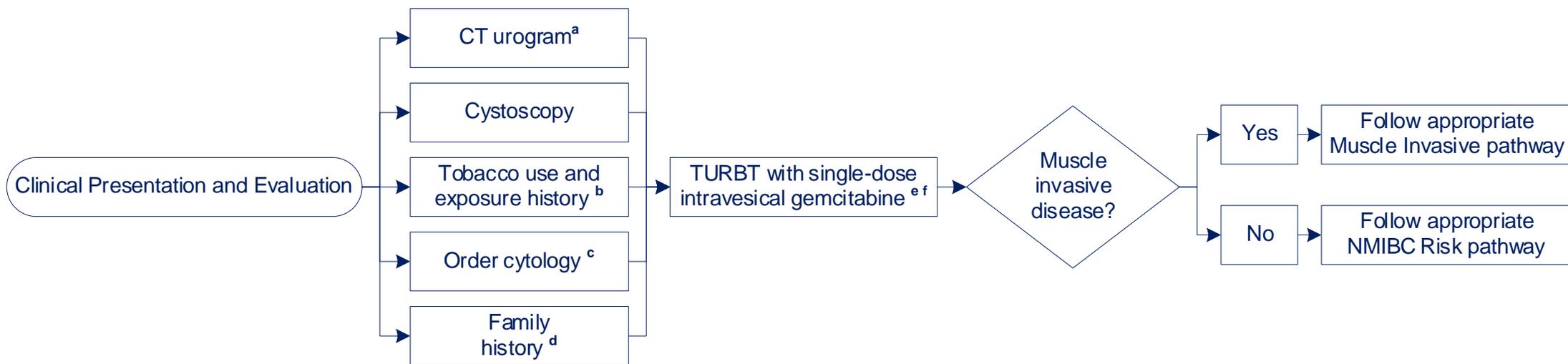
- Bladder cancer

Atomic Veterans – Exposure to Ionizing Radiation

- Cancer of the urinary tract

For more information, please visit [U.S. Department of Veterans Affairs - Presumptive Disability Benefits \(va.gov\)](https://www.va.gov/presumptive-disability-benefits/)

Bladder Cancer – Clinical Presentation and Evaluation



Clinical trial(s) always considered on pathway.

^a **CT Urogram** in patients unable to receive IV contrast, order alternative upper tract imaging

^b **Exposure** includes Agent Orange, burn pits, and other occupational/environmental toxins

^c **Cytology** order if results would change clinical management

^d **Family History** family or personal malignancy history, suspicion for Lynch syndrome, or age under 60 years

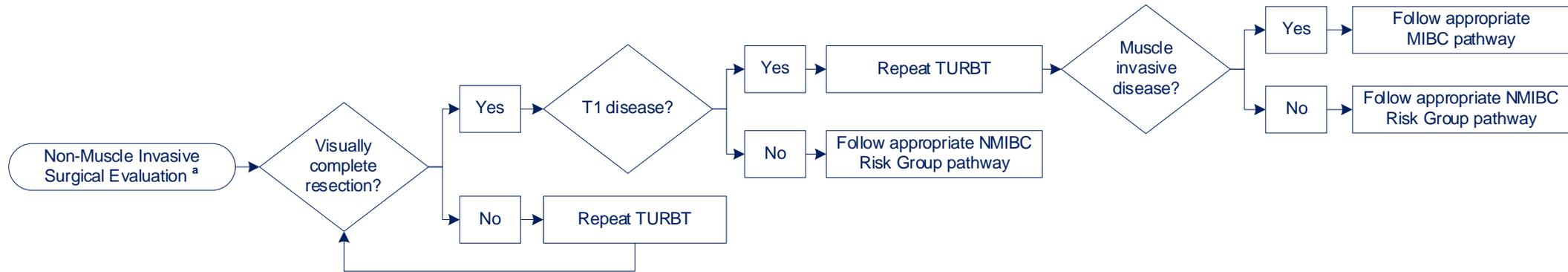
^e **TURBT with EUA** include blue-light cystoscopy if clinically appropriate

^f **Intravesical Gemcitabine** for known or presumed low grade

TURBT Transurethral Resection of Bladder Tumor

EUA Exam Under Anesthesia

Bladder Cancer – Non-Muscle Invasive Surgical Evaluation



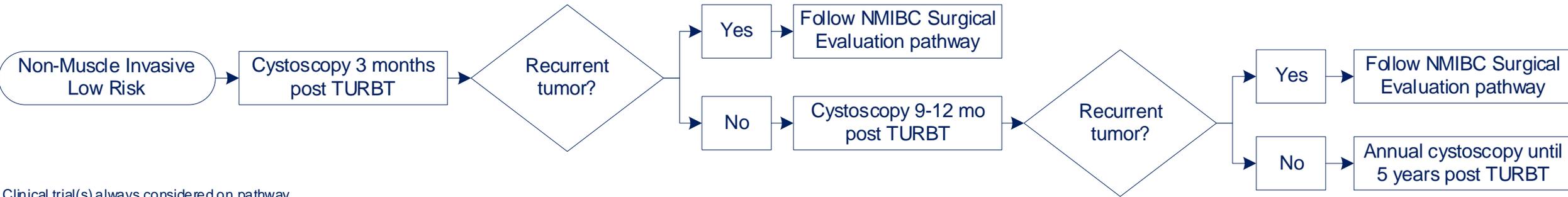
Clinical trial(s) always considered on pathway.

^a **Variants Histology** includes micropapillary, nested, plasmacytoid, neuroendocrine, sarcomatoid, squamous or glandular predominant

TURBT Transurethral Resection of Bladder Tumor

American Urological Association Non-Muscle Invasive Risk Stratification		
Low Risk	Intermediate Risk	High Risk
<ul style="list-style-type: none"> Papillary urothelial neoplasm of low malignant potential <p style="text-align: center;"><i>Or</i></p> <ul style="list-style-type: none"> Low grade urothelial carcinoma <ul style="list-style-type: none"> ▪ Ta and ▪ ≤3 cm and ▪ Solitary 	<ul style="list-style-type: none"> Low grade urothelial carcinoma <ul style="list-style-type: none"> ▪ T1 or ▪ >3 cm or ▪ Multifocal or ▪ Recurrence within 1 year <p style="text-align: center;"><i>Or</i></p> <ul style="list-style-type: none"> High grade urothelial carcinoma <ul style="list-style-type: none"> ▪ Ta and ▪ <3 cm and ▪ Solitary 	<ul style="list-style-type: none"> High grade urothelial carcinoma <ul style="list-style-type: none"> ▪ CIS or ▪ T1 or ▪ >3 cm or ▪ Multifocal <p style="text-align: center;"><i>Or</i></p> <ul style="list-style-type: none"> Very high risk features (any) <ul style="list-style-type: none"> ▪ BCG unresponsive ▪ Variant histologies ^a ▪ Lymphovascular invasion ▪ Prostatic urethral involvement

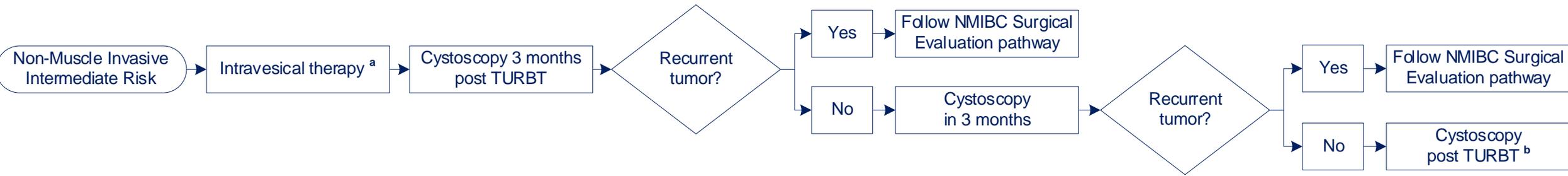
Bladder Cancer – Non-Muscle Invasive Low Risk



Clinical trial(s) always considered on pathway.

TURBT Transurethral Resection of Bladder Tumor

Bladder Cancer – Non-Muscle Invasive Intermediate Risk



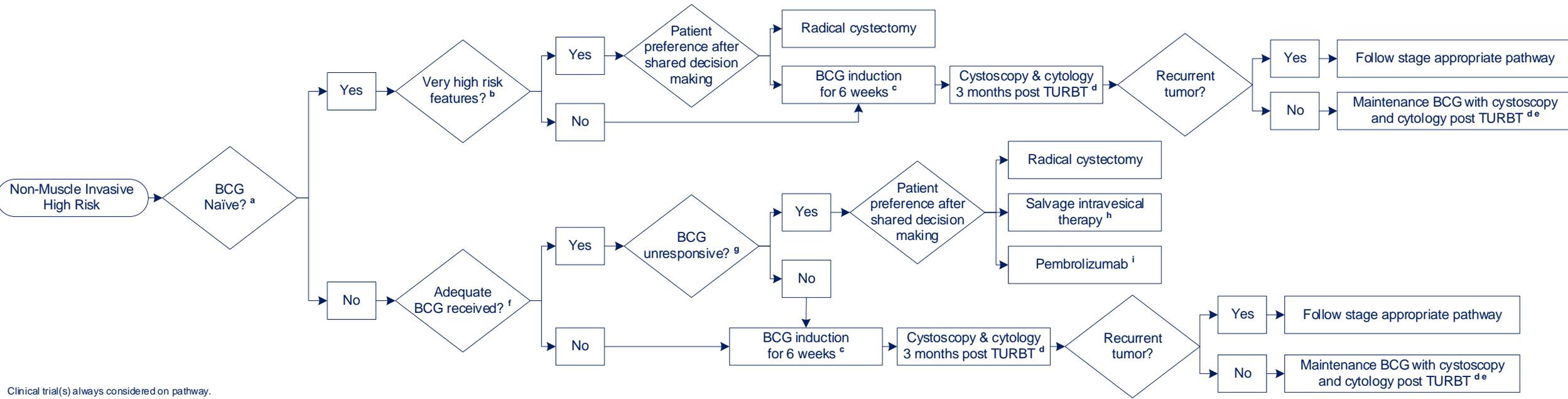
Clinical trial(s) always considered on pathway.

^a **Intravesical Therapy** BCG weekly instillations for 6 weeks preferred for high grade disease; if low grade or not available, gemcitabine once a week for six weeks within 3-4 weeks of TURBT; BCG or gemcitabine maintenance should be continued for one year

^b **Cystoscopy Post TURBT Schedule** at Year 1: at 3, 6, and 12 months; Year 2: every 6 months; Years 3-4: every 12 months; Year 5 and Later: annually

TURBT Transurethral Resection of Bladder Tumor

Bladder Cancer – Non-Muscle Invasive High Risk

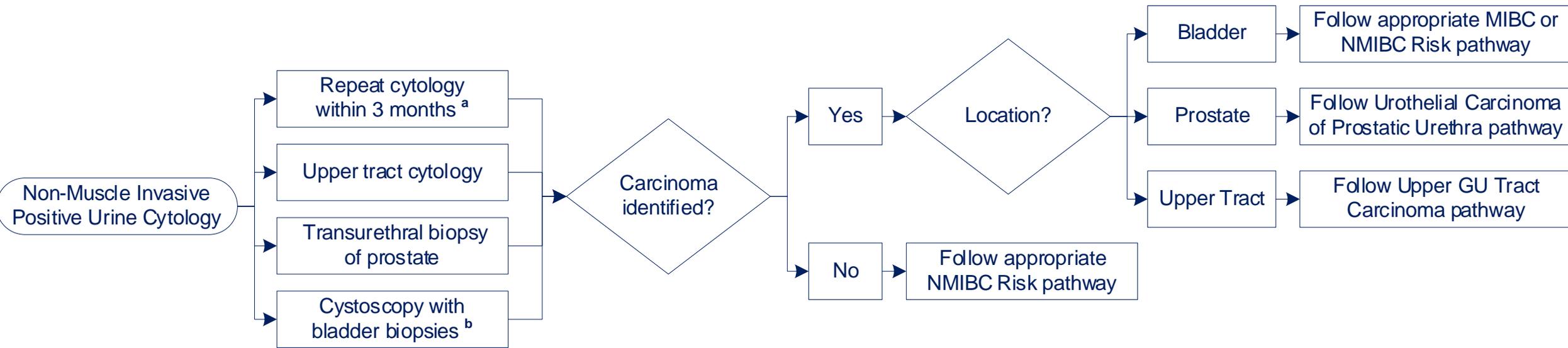


Clinical trial(s) always considered on pathway.

- ^a **BCG Naïve** BCG non-exposed or greater than one year since last BCG
 - ^b **Very High Risk Features** include BCG unresponsive, variant histologies, lymphovascular invasion, or prostatic urethral invasion
 - ^c **BCG Induction** only one repeat induction BCG course
 - ^d **Cystoscopy and Cytology Post TURBT** surveillance schedule: years 1-2: every 3 months; years 3-4: every 6 months; years \geq 5: annually
 - ^e **BCG Maintenance** 3 week instillations at 3, 6, 12, 18, 24, 30, and 36 months (3 years) after start of induction BCG
 - ^f **Adequate BCG** defined as \geq 5 induction doses and \geq 2 maintenance doses
 - ^g **BCG Unresponsive** defined as persistent high-grade disease or recurrence within 6 months of receiving at least 2 courses of intravesical BCG (at least 5 of 6 induction and at least 2 of 3 maintenance doses of BCG)
 - ^h **Salvage Intravesical Therapy** gemcitabine and docetaxel preferred
 - ⁱ **Pembrolizumab** indicated for treatment of patients with BCG-unresponsive, high-risk NMIBC with Tis tumors who are ineligible for or have elected not to undergo cystectomy
- BCG Bacillus Calmette Guerin
TURBT Transurethral Resection of Bladder Tumor



Bladder Cancer – Non-Muscle Invasive Positive Urine Cytology

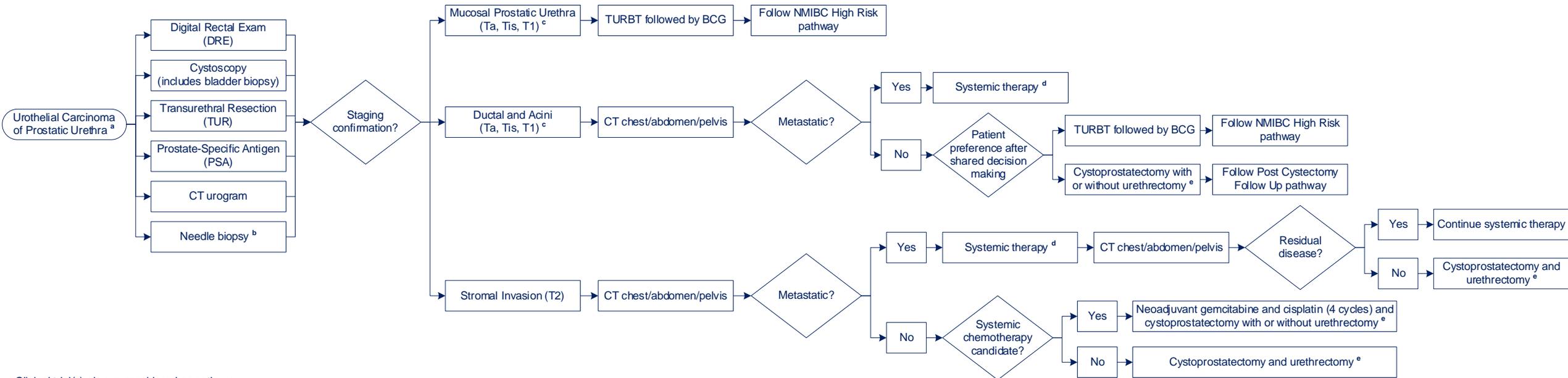


Clinical trial(s) always considered on pathway.

^a **Cytology** review clinical history with cytopathologist

^b **Cystoscopy** use enhanced technology if available

Bladder Cancer – Urothelial Carcinoma of Prostatic Urethra



Clinical trial(s) always considered on pathway.

^a **Urothelial Carcinoma of Prostatic Urethra** solely isolated prostatic urethra involvement

^b **Needle Biopsy** if DRE or PSA is abnormal

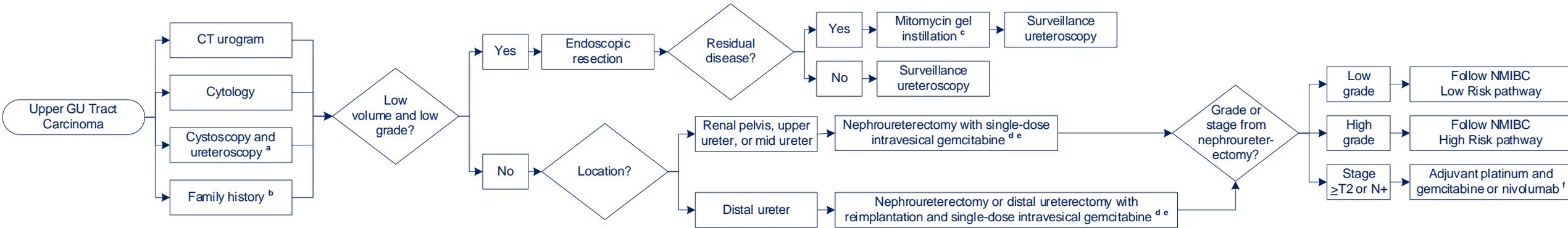
^c **Ta, Tis, T1** based on TUR; confirm subepithelial involvement

^d **If Cisplatin Eligible** prescribe gemcitabine and cisplatin followed by avelumab maintenance therapy; **If Cisplatin Ineligible** prescribe gemcitabine and carboplatin followed by avelumab maintenance therapy

^e **If Only Prior Pelvic Metastatic Disease**, reimaging with PET to ensure no metastatic disease prior to proceeding with surgery

TURBT Transurethral Resection of Bladder Tumor
BCG Bacillus Calmette-Guerin

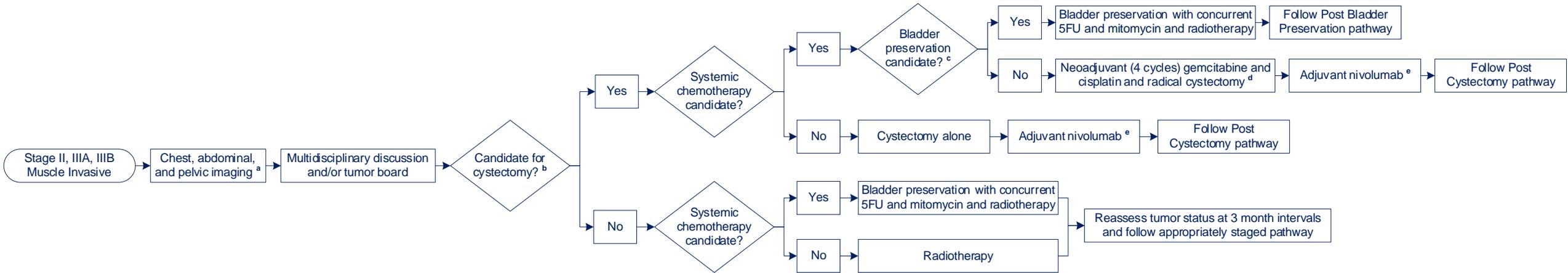
Bladder Cancer – Upper GU Tract Carcinoma



Clinical trial(s) always considered on pathway.

- ^a **Cystoscopy and Ureteroscopy** may include selective washing ± single-dose intravesical gemcitabine
- ^b **Family History** family or personal malignancy history, suspicion for Lynch syndrome; age under 60 years
- ^c **Mitomycin Gel Instillation** use for ureteral tumors is off-label
- ^d **Consider Neoadjuvant Gemcitabine and Cisplatin** for select high grade patients; consider Tumor Board discussion
- ^e **For High Grade** include regional lymphadenectomy
- ^f **Adjuvant Therapy** cisplatin if renal function allows; carboplatin if not a cisplatin candidate

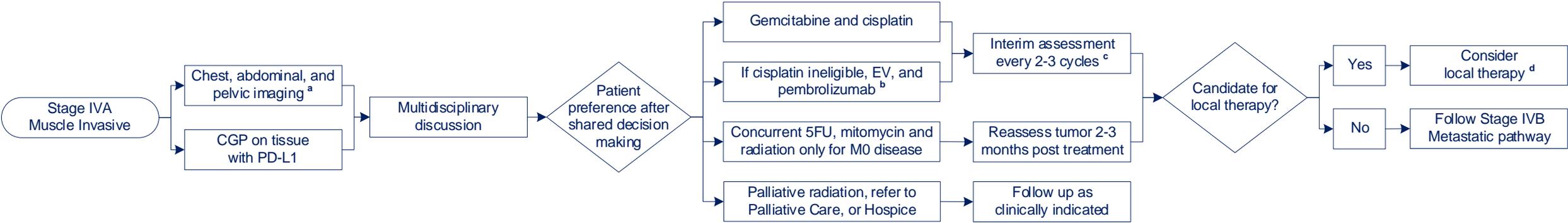
Bladder Cancer – Stage II, IIIA, IIIB Muscle Invasive



Clinical trial(s) always considered on pathway.

- ^a **Imaging** perform bone scan if clinically indicated
 - ^b **Candidate for Cystectomy** patients with clinical node positive disease should have resolution of adenopathy post chemo to become eligible for cystectomy
 - ^c **Bladder Preservation** avoid bladder preservation in patients with hydronephrosis and extensive or multifocal carcinoma in situ
 - ^d **Platinum-Based Chemotherapy** dose-dense MVAC can be considered in select patients
 - ^e **Adjuvant Nivolumab** for patients at high risk for recurrent MIBC following radical cystectomy with negative margins regardless of PD-L1 status
- MVAC** Methotrexate, Vinblastine, Doxorubicin, Cisplatin

Bladder Cancer – Stage IVA Muscle Invasive



Clinical trial(s) always considered on pathway.

^a **Imaging** perform bone scan if clinically indicated

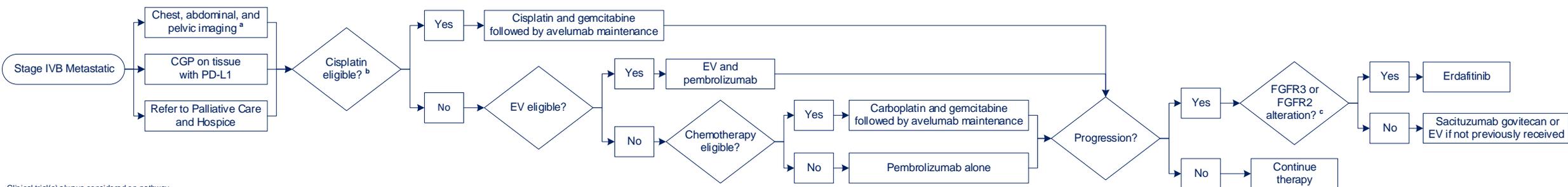
^b **Eligible for Pembrolizumab, Cisplatin Ineligible** defined as ECOG=2, creatinine clearance > 30 and < 60 mL/min, hearing loss/dysfunction; **Eligible for Enfortumab Vedotin** exclude patients with preexisting peripheral neuropathy ≥Grade 2, baseline ocular disorders, uncontrolled diabetes at baseline

^c **Interim Assessment** includes EUA, cystoscopy, and CT chest/abdomen/pelvis

^d **Local Therapy** may include radiation or cystectomy

CPG Comprehensive Genetic Profiling
EV Enfortumab Vedotin

Bladder Cancer – Stage IVB Metastatic



Clinical trial(s) always considered on pathway.

a Imaging perform bone scan if clinically indicated, imaging of CNS as clinically indicated

b Eligible for Pembrolizumab, Cisplatin Ineligible defined as ECOG=2, creatinine clearance > 30 and < 60 mL/min, hearing loss/dysfunction; Eligible for Enfortumab Vedotin exclude patients with preexisting peripheral neuropathy ≥Grade 2, baseline ocular disorders, uncontrolled diabetes at baseline

c If Not a Candidate for These Therapies consider hospice and/or palliative radiation

CPG Comprehensive Genetic Profiling
EV Enfortumab Vedotin

Criteria for Use

Erdafitinib: exclude patients with retinal/corneal abnormality at baseline or serum phosphate greater than upper limits of normal at baseline; perform ophthalmological exams at baseline and then monthly for the first 4 months of therapy, then every 3 months thereafter

Enfortumab Vedotin: exclude patients with preexisting neuropathy ≥ Grade 2, baseline ocular disorders, or uncontrolled diabetes at baseline

Sacituzumab Govitecan: has accelerated approval (Phase 2) for patients who previously received a platinum-containing chemotherapy and either a PD-1 or PD-L1 inhibitor; monitor for diarrhea and cytopenias; pre-medicate with antipyretics, H1 and H2 blockers, a regimen for CINV and a steroid if prior infusion reaction; hold for ANC <1500/mm³ on D1 or <1000/mm³ on D8

Bladder Cancer – Post Cystectomy Follow Up

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5-10	Year >10
Imaging NMIBC	CT urogram at 3 & 12 mo	Annual CT urogram				Annual renal ultrasound	As clinically indicated
Imaging MIBC	CT chest and CT urogram every 3-6 mo		Annual CT chest/abdomen/pelvis			Annual renal ultrasound	As clinically indicated
Blood Tests	CMP & CBC every 6 mo	Annual CMP and B ₁₂ levels				Annual B ₁₂ levels	
Urine Tests	Urine cytology every 6-12 mo; consider urethral wash every 6-12 mo		Urine cytology as clinically indicated Urethral wash cytology as clinically indicated				

Post Cystectomy Follow Up

Bladder Cancer – Muscle Invasive Post Bladder Preservation Follow Up

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5-10	Year >10
Cystoscopy	Every 3 mo		Every 6 mo		Annually		As clinically indicated
Imaging	CT chest and CT urogram every 3-6 mo		Annual CT chest/abdomen/pelvis			As clinically indicated	
Blood Tests	CMP & CBC every 6 mo	Annual CMP					
Urine Tests	Urine cytology every 6-12 mo		Urine cytology as clinically indicated				

Muscle Invasive
Post Bladder Preservation Follow Up

Bladder Cancer – Molecular Testing Table

Eligibility	Test Category	Test Type	Recommended Vendors	NPOP Coverage	Specimen Type
Stage IVA Muscle Invasive Urothelial Carcinoma/Bladder Cancer, Predominantly Urothelial	Somatic NGS	Comprehensive genomic profiling by solid biopsy (through NPOP preferred) or by liquid biopsy if there is insufficient tissue	Tempus Foundation Medicine	Yes Yes	Tumor Tissue, Blood
	IHC	PD-L1 expression by IHC using 22C3 antibody (pembrolizumab), SP142 antibody (atezolizumab), 28-8 pharmDx antibody (nivolumab), SP263 antibody (durvalumab)	Tempus Foundation Medicine	Yes Yes	Tumor Tissue
Stage IVB Metastatic Urothelial Carcinoma/Bladder Cancer	Somatic NGS	Comprehensive genomic profiling by solid biopsy (through NPOP preferred) or by liquid biopsy if there is insufficient tissue	Tempus Foundation Medicine	Yes Yes	Tumor Tissue, Blood
	IHC	PD-L1 expression by IHC using 22C3 antibody (pembrolizumab), SP142 antibody (atezolizumab), 28-8 pharmDx antibody (nivolumab), SP263 antibody (durvalumab)	Tempus Foundation Medicine	Yes Yes	Tumor Tissue



Questions?

Contact VHAOncologyPathways@va.gov



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